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Sep
2-4-98

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner:	R. Rosenberger	Atty Docket:	653.001US1
Applicant(s):	E. W. Stark	Group Art Unit	2505
Serial No.:	08/818,289	Filed	03/14/97

Title: METHOD AND APPARATUS FOR OPTICAL INTERACTANCE AND TRANSMITTANCE MEASUREMENTS

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

AMENDMENT AFTER NON-FINAL OFFICE ACTION

This Amendment is being filed in response to the non-final Office Action mailed on August 14, 1997.

IN THE CLAIMS

The status of the claims after this amendment is shown below, with all amendments to claims 1, 6, 7, 33, 34, 37, 38, 42 and 58 submitted by this Amendment appropriately identified.

Please cancel claims 14 and 17 without prejudice.

1. (AMENDED) A method for improving optical interactance measurements comprising the steps of:

passing illumination along a plurality of different transmission paths through an interior portion of a material having a characteristic to be measured;

defining each of said paths by corresponding and separated surface areas on said material, one of said surface areas for passing illumination into said material and the second of said surface areas for passing transmitted illumination from said material for detection, at least one of said surface areas of each of said paths being extended in length at substantially constant spacing from the other surface area of said each of said paths, the total length of said extended surface area of said each of said paths being substantially greater than the mean distance separating said corresponding and separated surface areas defining said each of said paths;

sensing a plurality of independent signals developed at the same time or in rapid sequence representing optical information obtained <u>from a spectrum related to the analytes and interferences</u> [from] within said material in response to said illumination passing along said different paths, each independent signal corresponding to a particular path; and